

Appl. No. 09/701,791
Amdt. Dated 4/15/2004
Response to Office action dated 01-20-2004

REMARKS

Claims 1- 3, and 7-16 are pending. Claims 7, 8, 11, and 12 have been amended. Claims 15 and 16 have been added. No new matter has been added.

Disclaimers Relating to Claim Interpretation and Prosecution History Estoppel

Claims 7, 8, 11 and 12 have been amended, notwithstanding the belief that these claims were allowable. Except as specifically admitted below, no claim elements have been narrowed. Rather, cosmetic amendments have been made to the claims and to broaden them in view of the cited art. Claims 7, 8, 11 and 12 have been amended solely for the purpose of expediting the patent application process, and the amendments were not necessary for patentability.

Any reference herein to "the invention" is intended to refer to the specific claim or claims being addressed herein. The claims of this Application are intended to stand on their own and are not to be read in light of the prosecution history of any related or unrelated patent or patent application. Furthermore, no arguments in any prosecution history relate to any claim in this Application, except for arguments specifically directed to the claim.

Claim Objections

The Examiner objected to claims 7-14 stating that the method claims are improperly dependent on apparatus claims. Claims 7, 8, 11, and 12 have been amended so that none of claims 7-14 depend on apparatus claims. As such, this objection is no longer applicable.

Claim Rejections - 35 USC § 103

The Examiner rejected claim 1 under 35 USC § 103 as obvious from Nakamura ("Recent Cements"; Concrete Products, Industry and Products No. 53, p. 42 - 53). The rejection is respectfully traversed.

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Nakamura is directed to autoclave curing, "a high-pressure steam curing" conducted "in a hermetically-sealed pressurizing container and curing at a high temperature and under saturated vapor pressure" (Nakamura, page 43, left column, lines 13-21).

To establish a *prima facie* case of obviousness, "the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination [. . .] must both be found in the prior art and not based on applicant's disclosure." *MPEP 706.02(j)*.

Claim 1 recites "A method of manufacturing chemically prestressed components which comprises molding concretes formed by kneading a cement composition containing a cement and an expansive additive and curing the same in a high temperature high pressure curing water at over 100°C."

The Examiner contended that Nakamura discloses

curing using high temperature high pressure curing water at over 100°C. (page 3, lines 5 – 21). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use high temperature high pressure curing water at over 100°C to promote hardening of the concrete (page 1, lines 26 – 20). Moreover, using the high temperature water would promote rapid curing of the cement composition because cement curing times are known to decrease with an increase in temperature.

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Nakamura is described in the specification from page 2, line 10 to page 3, line 3. Hei is described in the specification from page 3, lines 9-18. The portion of the patent application cited by the Examiner, page 3, lines 5-21, makes it clear that the Examiner was referring to Hei and not Nakamura. However, Hei is not a proper reference for a 35 U.S.C. § 103 rejection because Hei's publication date, July 6, 1999, is subsequent to the priority date of this application, June 4, 1998. Moreover, Hei is not a proper reference for a 35 U.S.C. § 103 rejection because both Hei and this application are both assigned to the same assignee. 35 U.S.C. § 103(c).

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Properly characterized, Nakamura describes "high pressure steam curing [. .] under saturated vapor pressure" (Nakamura, page 43, left column, lines 13-21). Nakamura' steam curing does not teach the recited feature of claim 1, "curing the same in a high temperature high pressure curing water at over 100°C" (emphasis added).

What? Moreover, the Examiner's argument "using the high temperature water would promote rapid curing of the cement composition because cement curing times are known to decrease with an increase in temperature" is not persuasive because claim 1 is directed to "curing the same in a high temperature high pressure curing water at over 100°C."

Since Nakamura, in combination with the prior art referenced in the specification does not teach each and every element of claim 1, claim 1 is patentable over the admitted prior art in view of Nakamura. Therefore, it is respectfully requested that the rejection be withdrawn and claim 1 be allowed to issue.

New Claims

Claims 15 and 16 have been added.

The high temperature high pressure underwater curing apparatus with a plurality of pressure resistant vessels of claim 15 is patentable because, consistent with the Office Action page 3 numbered paragraph 4 under the heading "Allowable Subject Matter," it comprises a curing water supply; a heater; a deaeration valve, wherein a transfer pipe is disposed to a lower portion of each vessel being connected to an optional portion of other pressure resistant vessels for delivering curing water, a transfer pipe disposed to an upper portion of each pressure resistant vessel being connected to the lower portion of other pressure resistant vessels for receiving curing water, and the respective pressure resistant vessels are connected by the two transfer pipes so as to form a circulation channel to each other. Claim 15 claims the same subject matter as earlier claims so new search is required.

The method of curing concrete molding products using a high temperature high pressure underwater curing apparatus of claim 16 is patentable because, consistent with the Office Action

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page 3 numbered paragraph 4 under the heading "Allowable Subject Matter," it comprises a curing step of filling the inside of the pressure resistant vessel with curing water, supplying pressurized air and curing concrete molding products contained in the vessel; transferring curing water filled inside the pressure resistant vessel through a transfer pipe; and taking out the concrete molding products after curing from the inside after the completion of the transfer step, in which each of the steps is repeated successively being shifted on each of the pressure resistant vessels and concrete molding products are cured while transferring the curing water to a plurality of the pressure resistant vessels to form a circulation channel. Claim 16 claims the same subject matter as earlier claims so new search is required.

Claim 15 is an apparatus claim which tracks the language of the Office Action page 3 numbered paragraph 4 under the heading "Allowable Subject Matter." Claim 16 is a method claim which tracks the language of the Office Action page 3 numbered paragraph 4 under the heading "Allowable Subject Matter."

Conclusion

It is submitted, however, that the independent and dependant claims include other significant and substantial recitations which are not disclosed in the cited references. Thus, the claims are also patentable for additional reasons. However, for economy and because agreement was reached with the Examiner as described above, the additional grounds for patentability are not set forth here.

In view of all of the above, it is respectfully submitted that the present application is now in condition for allowance. Reconsideration and reexamination are respectfully requested and allowance at an early date is solicited.

The Examiner is invited to call the undersigned attorney to answer any questions or to discuss steps necessary for placing the application in condition for allowance.

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Respectfully submitted,

Date: April 15, 2004



Joel G. Mandau, Reg. No. 54,732

SoCal IP Law Group
310 N. Westlake Blvd., Suite 120
Westlake Village, CA 91362
Telephone: 805/230-1350
Facsimile: 805/230-1355
email: info@socalip.com